further investigations and to supply a reliable and much needed aid. W. H. Hunter

U. S. Department of Agriculture

*Abwehrfermente. Das Auftreten blutfremder Substrate und Fermente im tierischen Organismus unter experimentellen, physiologischen und pathologischen Bedingungen.* Von Emil Abderhalden. Fourth, considerably enlarged edition. Published by Julius Springer, Berlin, 1914. Pp. xxiv + 404; with 55 text-figures and four plates.

In the fourth edition of this book, which first appeared about two years ago as a modest pamphlet, especial stress has been laid upon the necessary technique for demonstrating the specific ferments which form according to Abderhalden when any body-alien, tissue-alien or blood-alien proteid, carbohydrate or fat is brought into intimate contact with the tissues of an animal organism.[1] Numerous drawings accompany the text and detailed instructions are given for the various preparations and manipulations which must always be carried out with rigid aseptic precautions and with adequate controls. Sources of error are exhaustively treated and indeed are so numerous that perhaps any failure could be explained by some slip in technique. This technical part occupies one half of the book, the other half being devoted to an exposition of the theory and its numerous stimulating corollaries.

It is unfortunate that the method has not been simplified, for its difficulty is probably the main cause of the disagreement which still exists among competent investigators about the availability of Abderhalden's methods in the serodiagnosis of organic functions.

The widespread attention which Abderhalden's important work has aroused is well shown by the appended bibliography, which, though incomplete, numbers more than 300 titles.

The book is written with expository skill and with charm, and will be read with interest and profit even by those who are in scientific disagreement with its teachings. John Auer

Rockefeller Institute

[1] See the review of the second edition, Science, 1913, N. S., XXXVIII., No. 988, p. 820.

*Sun Lore of All Ages.* By William Tyler Olcott. G. P. Putnam's Sons. 1914. Pp. xiii + 346. Illustrated.

The setting of the dimmed sun in the west at night and its rising, refreshed and glowing, in the east on the following morning, presented a mystery to the early peoples of the world: to the dwellers in ancient Egypt, to the Incas of Peru, and to the Indians of our western plains. This mystery has been solved in many ways and has given rise to numberless legends, traditions and superstitions. These traditions Mr. Olcott has traced, the legends and superstitions he has collected and compared, and has formed the whole into a very readable and attractive book. The work, which is a worthy successor to the author's "Star Lore of All Ages"; is well printed, beautifully illustrated, and forms an attractive addition to any library.

Chas. Lane Poor

## *HEMOGLOBINOPHILIC BACTERIA*

The hemophilic or more properly hemoglobinophilic bacteria comprise a rather large group of bacilli which grow only in an artificial medium containing hemoglobin. This group does not include the many bacteria that, while growing better in media containing blood or blood serum, will also grow in media not containing hemoglobin. Its representative organism and by far its most important member is the influenza bacillus (*B. influenzæ*) which was discovered by Pfeiffer (hence commonly called Pfeiffer's bacillus) in the respiratory tract of patients afflicted with influenza during the great pandemic in 1889–90. Not only did he discover and isolate this organism at that time but he definitely proved its hemoglobinophilic character a property of bacteria hitherto unknown.

In his classical paper[1] in which he reported these researches he also described other organisms differing in certain respects from the true influenza bacilli, but similar in being hemoglobinophilic. These he called pseudoinfluenza bacilli. Since then these pseudo forms, which

[1] *Zeit. f. Hygiene,* 1893, 13, p. 357.